Chapter 15
Challenges and Opportunities for E-Learning in Education:
A Case Study

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ABSTRACT

This chapter presents a review of literature on the existing opportunities and challenges of adopting e-learning in education in Tanzania and the possible measures to overcome some challenges. The study also assessed the primary factors contributing to the slow and limited use and integration of technology tools by teachers and students despite the availability of technology in their schools. Based on the findings from literature review and government documents (policies and reports), it is evident that one of the determinants of a sustainable e-learning program in education in Tanzania is the availability of reliable and sound infrastructure. In the presence of appropriate technological tools and uninterrupted electricity, better access to Internet, and availability of a good model for technology use, both teachers and students might be willing to implement e-learning programs in their learning institutions.

INTRODUCTION

Technology integration in education to enhance teaching and learning can take place in different forms. Teachers can integrate technology as a presentation tool; by using PowerPoint, animations, video, simulations etc. Technology can also be integrated as a learning platform using Moodle, Blackboard, Rcampus and other virtual learning environments. There are also opportunities to integrate technology as a tool for facilitating distance learning through the use of emails, video conferencing, teleconferencing, Skyping and other synchronous and asynchronous communications. In recent development of educational technology, most of the technology uses in education are moving beyond the normal classroom teaching and learning to virtual learning (Kafyulilo, 2014). Technology is becoming an important tool to facilitate learning from "anywhere anytime" (cf. Collis & Moonen, 2001; Collis & Van der Wende, 2002; de Boer & Collis, 2005). Use of learning platforms and communication tools becomes an important instrument towards an effective implementation of

learning flexibility among students and teachers. In facilitating the "anywhere anytime" learning opportunities for students, educational institutions need to develop strong and reliable e-learning systems. Nihuka (2011) citing several authors argues that, e-learning technologies support the following flexibilities: interactions and collaboration between instructor and students; location and time barriers between instructors and students, and delivery of instructional contents. With the use of e-learning systems, teachers can use technology as a presentation tool, learning platform and also a communication tool.

According to Nihuka (2011) e-learning technologies such as e-mail have made web-enhanced teaching and learning possible to complement with the traditional course delivery processes in distance education in developing countries. Nihuka adds that, e-learning technologies such as computer and internet can enhance flexibility in searching and accessing resources from webs, thus, contributing to greater students achievements.

While there are multitudes of approaches to integrate technology in education, Tanzania has invested mostly on the use of technology as a presentation tool through the use of PowerPoint, animations, videos and simulations. A number of ongoing projects to integrate technology in education in Tanzania are focused on developing teachers' knowledge and skills of using technology to demonstrate some concepts or present some learning materials to students (Kafyulilo, 2014). Technology is integrated as a tool to help teachers to present a subject matter to students rather than a tool for mutual interaction between students and a teacher. Most of the technology integration efforts have paid little focus on the development of online learning systems at both low and high level of education so as to facilitate interactive learning. The Ministry of Education and Vocational Training of Tanzania is investing a significant amount of resources on the installation of computers in schools and training of teachers on how to use those computers for simplifying the

presentation of materials (cf. Hooker et al., 2011). Little is done to install facilities that facilitate e-learning in Tanzania; also there are limited efforts to develop teachers' and students' knowledge of using ICT tools for e-learning.

BACKGROUND TO ICT DEVELOPMENT EDUCATION IN TANZANIA

ICT Policies in Tanzania

The first national ICT policy in Tanzania was developed in 2003. This policy had two main objectives: (1) to provide a national framework to enable ICT to contribute towards achieving national development goals; and (2) to transform Tanzania into a knowledge-based society through the application of ICT (URT, 2003). The 2003 ICT policy did not specifically focus on the ICT development in education, and had no relationship with the earlier initiatives to integrate technology in education. It rather focused on guiding the overall use of ICT in the country, including mobile phones, computer, internet and other related ICT tools, be it in schools, in offices or at the market. According to Tilya (2008) the 2003 policy can be described as an emerging policy in education, where ICT is just in the process of getting introduced in schools.

In 2007 the "ICT policy for basic education" was formulated which aimed to promote the acquisition and appropriate use of literary, social, scientific, vocational, technological, professional and other forms of knowledge, skills and understanding for the development and improvement of man and society (URT, 2007). This policy incorporates the integration of ICT in pre-primary, primary, secondary and teacher education, as well as non-formal and adult education (Hare, 2007; URT, 2007). This policy considers issues of ICT infrastructure, curriculum and content, training and capacity development, planning, procure-

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